

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1 to 3, 5, 6, 8 to 16, 18 and 19 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Information Disclosure Statement

The Examiner is respectfully requested to acknowledge the Information Disclosure Statement filed on July 25, 2003. An initialled copy of the PTO-1449 should be sent to the undersigned at the earliest convenience of the Examiner.

Drawings

The Examiner objected to the drawings as not showing feature of the claimed invention. In regard to the dynamic thrust bearing described in claim 7, this claim has now been cancelled, rendering this part of the objection moot. With regard to claims 18 and 19, Applicants have added Figures 1D and 1E to show these arrangements. No matter has been entered by way of this addition since these two arrangements were described in the specification and claims.

Figure 1C was also added to show an additional variation.

Rejection Under 35 U.S.C. § 112

Claim 4 stands rejected under 35 U.S.C § 112, first paragraph, as failing to comply with the written description requirement. By way of the present amendment, Applicants have cancelled claim 4, rendering this rejection moot.

Rejection Under 35 U.S.C. § 102

Claims 1, 3, 5, 12, 14, 16 and 17 stand rejected under 35 U.S.C. § 102 as being anticipated by Ritts (U.S. Patent 5,506,459). This rejection is respectfully traversed.

The Examiner points out that Ritts shows a magnetic suspension bearing for use on a rotational device including a stator, a spindle and a base dock. The spindle is rotationally coupled with the stator through the magnetic suspension bearing. The bearing includes two magnetic ring sets each having a stator magnetic unit and a spindle magnetic unit. Applicants disagree that the present claims are anticipated by this reference.

Claim 1 has now been amended to specify that the magnetic center line of the spindle magnetic unit is lower than the magnetic center line of the stator magnetic unit. This arrangement generates an axial prestressing force so that the spindle is held more firmly against the loading section. This arrangement is not shown or described in Ritts at all. In fact, Ritts teaches against this concept by reversing this arrangement in order to lower the friction between the spindle and the loading section. Accordingly, Applicants submit that claim 1 is neither anticipated by nor obvious over Ritts.

Claims 2, 3, 5, 6, 8 to 16, 18 and 19 depend from claim 1 and as such are also considered to be allowable. In addition, each of these claims recites other features of the invention which makes them additionally allowable. In many cases, the dependent claims also include limitations not seen in the cited reference. For example, claims 8 and 9 describe the separation rings. Claims 18 and 19 describe the curved loading section for contacting the spindle. Accordingly, these claims are considered to be additionally allowable.

Rejection Under 35 U.S.C. § 103

Claims 2, 18 and 19 stand rejected under 35 U.S.C. § 103 as being obvious over Ritts. Applicants submit that these claims remain allowable based on their dependency from allowable claim 1. Furthermore, Applicants submit that Ritts does not show the features of these claims and especially does not show the concave arch side or convex arch side.

Claims 4 and 15 stand rejected under 35 U.S.C. § 103 as being obvious over Ritts in view of Wehde et al. Claims 6 and 7 stand rejected under 35 U.S.C. § 103 as being obvious over Ritts in view of Tokushima et al. Claims 8 to 10 stand rejected under 35 U.S.C. § 103 as being obvious over Ritts in view of Jeong. Claims 11 and 13 stand rejected under 35 U.S.C. § 103 as being obvious over Ritts in view of McHugh. These rejections are respectfully traversed.

In each of these rejections, the Examiner has cited the secondary reference to show the use of an additional feature. However, Applicants submit that these claims are allowable based on their dependency from allowable claim 1. Furthermore, the combination of the various references does not aid the Ritts reference in overcoming its deficiencies noted above and especially the arrangement of the magnetic center lines. Accordingly, these claims are all considered to be allowable as well.

In particular, Applicants disagree with the Examiner's showing of the Jeong reference. Applicants submit that no separation rings are provided in this reference and that these claims are additionally allowable.

CONCLUSION

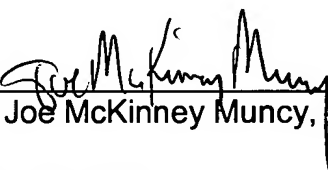
In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mr. Robert F. Gnuse (Reg. No. 27,295) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments - FIGS. 1C, 1D and 1E